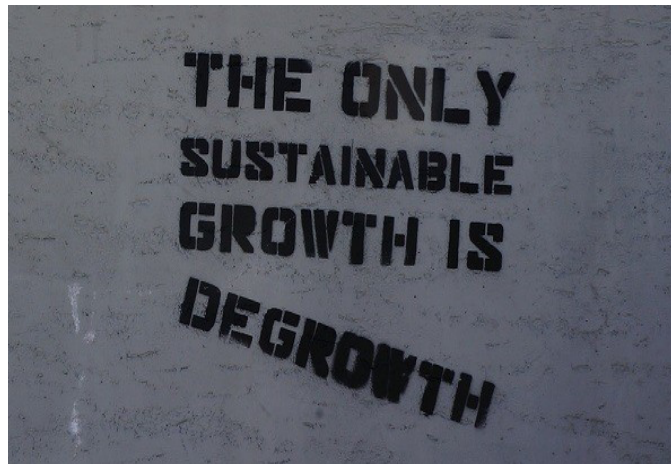




The Degrowth Debate

GTI Roundtable

February 2015



The degrowth movement emerged to challenge the depoliticization of environmentalism and argue for the incompatibility of continued economic growth and a livable planet. Giorgos Kallis outlines the key tenets of degrowth and explains how it broadens our ideas of the possible. Our panelists discuss the viability and desirability of the degrowth vision.

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TOWARD A TRANSFORMATIVE VISION AND PRAXIS



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The Degrowth Alternative

Giorgos Kallis

Abstract: Both the name and the theory of degrowth aim explicitly to re-politicize environmentalism. Sustainable development and its more recent reincarnation “green growth” depoliticize genuine political antagonisms between alternative visions for the future. They render environmental problems technical, promising win-win solutions and the impossible goal of perpetuating economic growth without harming the environment. Ecologizing society, degrowthers argue, is not about implementing an alternative, better, or greener development. It is about imagining and enacting alternative visions to modern growth-based development. This essay explores such alternatives and identifies grassroots practices and political changes for facilitating a transition to a prosperous and equitable world without growth.

The rise of mainstream discourse on sustainable development effectively erased the radical promise of ecology.

Ecology vs. Modernity

The conflict between environment and growth is ever-present. For “developers,” the value of growth is not to be questioned: more mining, drilling, building, and manufacturing is necessary to expand the economy. Against developers stand radical environmentalists and local communities, who are often alone in questioning the inevitability of “a one-way future consisting only of growth.”¹ In this opposition to development projects, philosopher Bruno Latour sees a fundamental rejection of modernity’s separation of means and ends.² Radical environmentalists recognize that ecology, with its focus on connecting humans with one another and with the non-human world, is inherently at odds with growth that separates and conquers.

The rise of mainstream discourse on sustainable development effectively erased the radical promise of ecology. The notion of sustainability that emerged from the 1992 Earth Summit neutralized and depoliticized the conflict between environment and growth. Since then, negotiations between government, businesses, and “pragmatic” environmentalists have assumed that new markets and technologies can simultaneously boost economic growth and protect natural systems. Environmental problems have been largely consigned to the realm of technical improvement, the province of experts and policy elites.

Ten years ago, the provocative formulation of “degrowth”—a so-called “missile concept”—was put forward to challenge this de-politicization of environmentalism and attack the “oxymoron of sustainable development.”³ The use of a negative word for a positive project was intentional: by subverting the desirability of growth, degrowth aimed to identify and question the ideology that must be confronted in order to transition to a truly sustainable world: the ideology of growth. Degrowth theorists call for an “exit from the economy,” an invitation to abandon economic thinking and construct viable alternatives to capitalism. However, proposing alternative economic models is not enough. We must also question the existence of an autonomous sphere called “the economy.” The “free market” is not a natural process; it has been constructed through deliberate governmental intervention. Re-politicization of the economy will require hard-fought institutional change to return it to democratic control.

Envisioning Degrowth

Advocates of degrowth refrain from offering any one blueprint to replace today’s growth-centric “free” market. Their objective is to open up conceptual space for imagining and enacting diverse alternative futures that share the aims of downscaling affluent economies and their material flows in a just and equitable manner.⁴ Reducing such material flows would likely lead to a decrease in GDP as currently measured.⁵ However, degrowth is not synonymous with recession or depression, the terms we use for negative growth in a growth economy. Degrowth, instead, involves a

Degrowth involves a rethinking of the organization of society signaled by terms such as limits, care, and *dépense*.

rethinking of the organization of society signaled by terms such as limits, care, and *dépense*.⁶

Degrowth proposals generally incorporate collective *limits*, such as caps on carbon emissions or 100% reserve requirements for banks. These are understood as “self-limitations,” collective decisions to refrain from pursuing all that could be pursued. Moreover, only social systems of limited size and complexity can be governed directly rather than by technocratic elites acting on behalf of the populace. Fossil fuels and nuclear power are dangerous not only because they pollute, but also because an energy-intensive society based on increasingly sophisticated technological systems managed by bureaucrats and technocrats will grow less democratic and egalitarian over time. Many degrowth advocates, therefore, oppose even “green” megastructures like high-speed trains or industrial-scale wind farms.

Care can become the hallmark of an economy based on reproduction, rather than expansion. Reproduction refers to the activities that sustain the life cycle, typically within the family. But more generally, it encompasses all processes of sustenance and restoration. In the present economy, care work remains gendered, undervalued, and pushed into the shadow of the formal economy. Degrowth calls for the equal distribution of care work and the re-centering of society around it. A caring economy is labor-intensive precisely because human labor is what gives care its value. It thus has the potential to offset rising unemployment today while fostering a more humane society.

Dépense refers to the unproductive expenditure of the social surplus. How civilizations allocate their surplus, the expenditures they make above and beyond what is necessary to meet basic human needs, gives them their collective character. The Egyptians devoted their surplus to pyramids, the Tibetans to an idle class of monks, and the Europeans of the Middle Ages to churches. In today’s capitalist civilization, as the surplus is accumulated and invested to produce more growth, *dépense* is displaced to privatized acts of exuberant consumption. Since limiting excessive consumption alone would fuel even more saving and investment, degrowth envisions radically reducing the surplus and deploying it for a festive society in which citizens devise new, non-harmful ways to dispense it, ways that help build community and collective meaning.

The Degrowth Imperative

There is a substantial body of evidence that demonstrates how growth threatens both environmental and social well-being.⁷ Continued economic growth makes us more likely to exceed the safe operating space defined by planetary boundaries, making life harder for everyone, especially the most vulnerable. Although “green growth” has become a buzzword in recent years, it remains an oxymoron. Its emphasis on enhanced efficiency creates a paradox: decreased resource requirements lead to lower costs and so—by the simple workings of supply and demand—a rebound in

Growth can never quench the desire for positional goods; only redistribution and new values can.

the consumption of resources.⁸ This is part of the fundamental dynamic of capitalism: increasing productivity frees up resources that are invested to provide yet more growth.

Continued economic growth in wealthy nations is also proving inimical to well-being. As Herman Daly observed, “illth” (congestion, crime, and other undesirable side effects) increases as fast as, or faster than, wealth as measured by GDP.⁹ Redistribution, not growth, is what improves well-being in affluent nations. Moreover, despite significant economic growth, people in the United States and most countries of the West are at best only marginally happier than they were in the 1950s. The wealthy are happier than the poor, but wealth, in the aggregate, does not translate into a higher average level of happiness because aspirations also increase and comparisons intensify with higher standards of living. Growth can never quench the desire for positional goods; only redistribution and new values can.

What about those in poor nations who have yet to see the benefits of growth? Degrowth in the Global North can provide ecological space for the Global South. For example, strong carbon caps for the North and better terms of trade for the South can help compensate for past carbon and resource debts, redistributing wealth between North and South. Economic growth in the South, moreover, threatens alternative, non-monetized means of livelihood, generating the poverty that, in turn, makes more growth “necessary.” Degrowth in the North, then, can provide space for the flourishing of alternative cosmovisions and practices in the South, such as *buen vivir* in Latin America or *ubuntu* in Africa. These are alternatives to development, not alternative forms of development.

Seeds of a Degrowth Transition

Degrowth alternatives have begun to flourish as the formal economy has fallen into crisis. These include food production in urban gardens; co-housing and eco-communes; alternative food networks, producer-consumer cooperatives, and communal kitchens; health care, elder care, and child care cooperatives; open software; and decentralized forms of renewable energy production and distribution. These alternatives are often accompanied, or even supported, by new forms of exchange such as community currencies, barter markets, time banks, financial cooperatives, and ethical banks.¹⁰

Such projects display various facets of degrowth. They promote a shift to a more locally based economy with short production and consumption cycles. They emphasize reproduction and caring, to satisfy use values, not profits. They replace wage labor with voluntary activity. They do not have a built-in tendency to accumulate and expand, and they are less resource-intensive than their counterparts in the formal economy. Such practices of “commoning” cultivate solidarity and humane interpersonal relations, and generate shared, non-monetary wealth.

An exit from growth requires an exit from capitalism.

As these alternative forms of provisioning suggest, a degrowth transition will be heavily bottom-up. However, broad institutional changes will be needed to foster adoption of such practices. For example, a guaranteed basic income would provide universal access to national wealth, securing basic sustenance for all and liberating time for non-paid activity. With the complementary policy of a job guarantee, the state could provide employment for all who wish to work in activities that support the common good. A shorter workweek and job sharing without a reduction of monthly wages could also combat unemployment and create more time for leisure and commoning. Adoption of these policies would reduce economic insecurity without the need for further economic growth.

A transition beyond growth will entail a transition beyond capitalism, since the essence of capitalism is accumulation and expansion.¹¹ A degrowth transition would likely follow a pattern similar to those of past systemic economic shifts. Capitalism arose from feudalism as connections were forged between new economic practices and entities (firms, corporations, trade contracts, banks, investments) and political and institutional developments supportive of these practices (abolition of monarchies and feudal privileges, enclosure of the commons, liberal democracy, laws protecting private property).

Analogously, contemporary grassroots practices and institutional changes can seed a transformation of the current system, as economic growth approaches its limits. Degrowthers see deepening democracy as essential to a degrowth transition. They welcome experimentation with direct forms of popular democracy, such as those practiced by the Occupy movement. They envision a regime that combines elements of direct and delegative democracy, such as the “radical ecological democracy” advocated by Ashish Kothari.¹²

A degrowth transition would differ sharply from the revolutions of the twentieth century, not only because it would be resolutely non-violent and democratic in character, but also because the target would not just be capitalism, but also productivism. An exit from growth requires an exit from capitalism, but an exit from capitalism does not necessarily bring an exit from growth. Twentieth century socialist regimes replaced the capitalist relations of production without changing the basic objective of resource exploitation and surplus accumulation for the sake of mass production and consumption.

Governing Degrowth

Despite the richness of degrowth theory, proponents are still grappling with questions of scale and governance. Advocates of degrowth privilege relocalization, anticipating that it will emerge and flourish, leading to a national political movement that can change the state from within. However, there is a tension between a desire for local autonomy and the need for action at a broader scale. A certain degree of hierarchy is unavoidable because the redistribution of burdens and resources among

To be successful, the transition to degrowth must be global.

more and less privileged localities will require intermediation and decision-making at broad geographic levels. Some of the degrowth reforms discussed above are, in fact, quite interventionist and would require strong state action.

Likewise, engagement with governance at a global scale is largely absent from the discussions within the degrowth movement. This is curious given the centrality of issues like climate change, free trade, and relentless global competition. Many degrowth advocates appear to assume that limitations on trade and capital at the national level will extricate a country from global economic forces, or that generalized global change will ensue as the aggregate effect of local grassroots initiatives. However, such developments remain unlikely. Climate change, for instance, cannot be tackled solely by summing up various local low-carbon initiatives in the absence of international agreements that cap total greenhouse gas emissions.

Under the prevailing neoliberal regime, global interdependence makes it impossible for a country to undertake a degrowth transition on its own. Doing so would entail substantial penalties from capital flight, bank and currency collapses, asset devaluations, collapse of public and security institutions, and political isolation. This would undermine the ability of a nation to pursue a quiet contraction on its own. Likewise, if a single country or block of countries were to successfully downscale their economies, a global reduction of resource prices would likely follow, producing a rebound in consumption elsewhere. In a sense, then, escaping growth is a global collective action problem. To be successful, the transition to degrowth must be global.

Epilogue

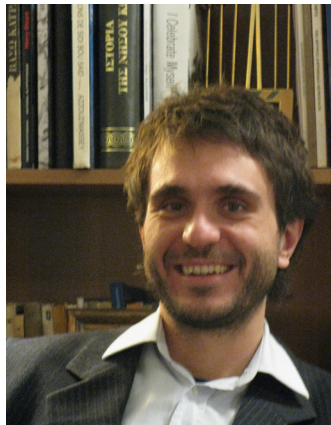
Degrowth requires a commitment not just to protect nature or to manage and mitigate the impacts of capitalism, but also to create an alternative social-ecology and a fundamentally different basis for action. From this new perspective, environmentalists opposing a mega-project need not perform cost-benefit calculations or devise alternatives that accommodate growth. They can simply assert that such projects do not fit the world in which they want to live. They can say that there is alternative, and it is called “degrowth.”

Endnotes

1. The phrase is from Ursula Le Guin, whose social science fiction novel *The Dispossessed* (London: Panther, 1975) provides a vivid exposition of a degrowth world.
2. Bruno Latour, “To Modernize or to Ecologize? That’s the Question,” in *Remaking Reality: Nature at the Millennium*, eds. Noel Castree and Bruce Willems-Braun (New York: Routledge, 1998), 221-242.
3. Serge Latouche, *Farewell to Growth* (Cambridge, UK: Polity, 2009). For a review of the unpublished francophone literature, see Valérie Fournier, “Escaping from the Economy: The Politics of Degrowth,” *International Journal of Sociology and Social Policy* 28, no. 11/12 (2008): 528-545, <http://dx.doi.org/10.1108/01443330810915233>. The choice of the term “degrowth” (*décroissance* in French) was inspired by the title of Nicholas Georgescu-Roegen, Jacques Grinevald, and Ivo Rens, *Demain la Décroissance: Entropie-écologie-économie* (Lausanne: Pierre-Marcel Favre, 1979). On degrowth as a “hypothesis,” see Giorgos Kallis, Christian Kerschner, and Joan Martinez-Alier, “The Economics of Degrowth,” *Ecological Economics* 84 (2012): 172-180.
4. See Francois Schneider et al., “Crisis or Opportunity? Economic Degrowth for Social Equity and Ecological Sustainability: Introduction to this Special Issue,” *Journal of Cleaner Production* 18, no. 6 (2010): 511-518, <http://www.sciencedirect.com/science/article/pii/S0959652610000259>.
5. Herman Daly, *Beyond Growth: the Economics of Sustainable Development* (Boston: Beacon Press, 1997).

6. Giacomo D'Alisa et al., eds., *Degrowth: A Vocabulary for a New Era* (London: Routledge, 2014). See also www.vocabularydegrowth.org.
7. See D'Alisa et al., op. cit.; Daly, op. cit.; Tim Jackson, *Prosperity without Growth* (New York: Earthscan, 2008).
8. Blake Alcott, "Jevons' paradox," *Ecological Economics* 54, no. 1 (2005): 9-21, <http://www.sciencedirect.com/science/article/pii/S0921800905001084>.
9. Herman Daly, op. cit.
10. Joana Conill et al., *Otra vida es posible: prácticas alternativas durante la crisis* (Barcelona: Ediciones UOC Press, 2012); Julie Katherine Gibson-Graham, *The End of Capitalism (As We Knew It): A Feminist Critique of Political Economy* (Minneapolis: University of Minnesota Press, 2006).
11. Capitalism can experience involuntary negative growth, but not for long, as this would lead to intensifying inequalities and socio-political instability, and the threat of the imposition of some form of autocracy.
12. Ashish Kothari, "Radical Ecological Democracy: A Path Forward for India and Beyond," *The Great Transition Initiative* (July 2014), <http://greattransition.org/publication/radical-ecological-democracy-a-path-forward-for-india-and-beyond>.

About the Author



Giorgos Kallis is an ecological economist and political ecologist, and a professor at ICTA, Barcelona. Previously a Marie Curie Fellow at the Energy and Resources Group of UC Berkeley, Giorgos holds also a Ph.D. in Environmental Policy from the University of the Aegean, a Masters in Economics from Universitat Pompeu Fabra, and a Masters in Environmental Engineering and a Bachelors in Chemistry from Imperial College, London. He is the coordinator of the European Network of Political Ecology and editor of the new book *Degrowth: A Vocabulary for a New Era* (2014). His research is motivated by a quest to cross conceptual divides between the social and the natural domains and focuses on the political-economic roots of environmental degradation and its uneven distribution along lines of power, income, and class. His current work engages with the double global economic and ecological crisis, exploring the hypothesis of sustainable de-growth: a smooth economic downscaling to a sustainable future where we can live better with less.



Roundtable



Nicholas Ashford

GTN is to be congratulated for stimulating the discussion of degrowth with this essay by Giorgos Kallis, with whom I have published on the benefits and difficulties of achieving a four-day workweek. I must confess that I had expressed to Kallis at the Barcelona meeting, the second Degrowth Conference, my concern that the term “degrowth” would probably be received negatively before its positive aspects were appreciated. I also do not agree that sustainable development is an oxymoron; it is sustainable growth that is an oxymoron, following on the important distinction Herman Daly draws between growth and development. For my part, a movement described as “confronting growth” might have accumulated less baggage in achieving that change. I am not yet willing to forgo sustainable development as a unifying all-encompassing construct.

Since writing my book *Technology, Globalization, and Sustainable Development: Transforming the Industrial State*, I have come to believe that “Transforming the Industrial State” would have better been the title, rather than the subtitle—and that it would better describe the degrowth movement. Some critics of the degrowth movement bemoan the fact that there is much there on what things have to change, but not much of a blueprint for how to change things.

I submit that there are two overarching areas that need to be addressed in achieving a fair, just, and nurturing society: (1) opening up the problem space so that interventions can address all areas which need improvement—environment, employment, economic welfare, social and political stability—and (2) opening up the political space so that all voices can be heard and governance by the economic and social elite does not drown out significant portions of society and continue to exacerbate the all-important mal-distributional effects of industrial and industrializing economies.



The Greek crisis in Europe and the recent attention paid to the increasing inequality of wealth are testimonials for the need to reform the financial institutions, laws, and practices that make progress in confronting growth all but impossible. The problems are not merely technical; they are political. Good ideas like a shorter workweek that retains work pay parity, decreases in energy and material content, less consumption by some (but more consumption by others), increases in wages, guaranteed minimum incomes, etc., cannot be achieved without these fundamental reforms.

We all know that products and services that are not only subsidized, but also do not include in their price the full environmental, social, and economic costs that they impart on the economy and individuals, are examples of distortions and negative externalities that result in too much being produced or offered. What does not seem to be appreciated is that unless public and private investment can capture the positive externalities of serving and servicing others, these investments are unlikely to be undertaken by investors. That is why either investment for the public good needs to be a willing cultural norm of a society, or government laws, regulations, and programs need to be fashioned to correct the fact that there are those who are deprived of essential goods, services, education, and employment because they are unable to pay for them. When van den Bergh offers that we ought to be concerned with what changes we want rather than focusing on growth per se, he has a point.

Governance entails not only full participation by all segments of society, but also the provisioning of essential benefits for all segments of society. I myself am not expecting the cultural revolution that others seem to hope for. Confronting the growth paradigm requires understanding fully who benefits from the current practices and who does not, or cannot. It requires us to understand who is gaming the present system and who is standing in the way of change, and then a society has to care. That caring has often worked in small communities to bring about change, but given the overwhelming influence that increasingly concentrated wealth plays in political, economic, and international decisions at a larger scale, it will take more than wishful



thinking to bring about change. Systems thinking is essential, lest suggested single-purpose reforms—like only raising the minimum wage—simply move chairs on the economic Titanic.

Before reform of the production and consumption system is possible, there has to be reform of the financial system. Perhaps it is fortunate that we do not have a single one-world government. This allows for communities and individuals to experiment and to demonstrate that there are more equitable, just, and nurturing ways to organize the economy. Then, perhaps, others will want to emulate it.

It may seem far afield to argue that watching how the Greek crisis unfolds may tell us a great deal about an unfair and destructive market and financial system that should not be allowed to destroy a country and a people. The Troika are concerned about the ratio of Greece's debt to GDP, but all they have managed to do is reduce the debt while reducing essential growth even more. Some kinds of growth we do need; others we do not. Some kinds of degrowth we need; others we do not. Greece needs growth in essential goods in services, employment, and social stability. This is not achievable by financial transfers that only reduce the debt owed to the financial speculators represented by the Troika.

Regarding Giorgos Kallis' essay, as a practical matter, I am not convinced whether we will ever achieve a "viable "alternative to capitalism" or "an exit from the economy," but capitalism within limits and with a more human face with attention paid to the redistribution of economic and political power could be achieved. Fostering a deeper understanding of options for the industrial and industrial state is the place to begin. My own personal view is that the creation of financially and personally rewarding and meaningful work, in combination with more widespread individual capital ownership to create a second mechanism to enhance earning capacity, is the first programmatic intervention that is needed. Certainly in today's global climate, as long as employment is in dire straits (large and insecure unemployment and underemployment, with wages that represent decreasing purchasing power), expenditures and technical changes leading



to a better environment should not be expected. I would not join the doomsayers that say we are on the road to destruction, but we have been on the road to fracturing and dividing society along economic and political fault lines and hollowing out the middle class—and that is not a very pretty sight. The expansion of Northern-style growth in the Global South (and population growth too) may very well dwarf anything that can be done soon enough in the North. That is why we must engineer a different model for the South to emulate and provide financial and technical assistance in its global adoption. Confronting growth and transforming the industrial state could unite us in that effort.

About the Author



Nicholas Ashford is Professor of Technology & Policy and Director of the Technology & Law Program at MIT, where he teaches courses in technology, globalization, and sustainable development; environmental law; environmental law, policy, and economics; and law, technology, and public policy. Dr. Ashford is a visiting scientist at the Harvard School of Public Health and teaches intensive courses in sustainable development and European/international environmental law at Cambridge University, UK, and at the Cyprus University of Technology. Dr. Ashford is the co-author of two recent textbooks: *Technology, Globalization, and Sustainable Development: Transforming the Industrial State* (2011) and *Environmental Law, Policy and Economics: Reclaiming the Environmental Agenda* (2008). He holds both a PhD in Chemistry and a Law Degree from the University of Chicago, where he also received graduate education in Economics.



Maurie Cohen

I very much enjoyed Giorgos Kallis's GTI essay on "The Degrowth Alternative" and commend it for providing an informative introduction to the concept as an intellectual idea as well as to the way that it is informing certain areas of policy practice. I have three more or less discrete points to make in response.

First, I have long found it striking—and Kallis' essay reminded me of this fact—that those of us who work primarily in the English language face a major obstacle in envisioning alternative futures. This situation is clearly demonstrated in discussions about degrowth where the very point of departure is an inelegant interpretation of the French word *décroissance*. And it gets worse with the importation of terminology like *dépense* (French for "financial outlay" but often used colloquially to suggest "unproductive expenditure"), *ubuntu* (Nguni Bantu word meaning "human kindness"), and *buen vivir* (a Spanish expression that is much more evocative than its English near-equivalents, "good life" and "good living"). Linguists call these terms loanwords, and they have become essential to the English language discourse which has required still further enlivening through the invention of phrasing such as "illth" (conceived by ecological economist Herman Daly) and "communing" (coined by historian Peter Linebaugh).

What might we construe from these etymological twists? Language mirrors the predominant system of societal organization, and as neoliberal economics (and politics) has seeped further and further into our collective consciousness, we—and especially those of us in the English-speaking world—have lost our ability to communicate proficiently about a world without growth. If we struggle to find the vocabulary, how can we express ourselves so others will comprehend? Such circumstances, it seems to me, evoke our deeply impoverished state of affairs. Even the words that we do have at our disposal to describe conditions of sufficiency—



frugality, prudence, thrift, parsimony—have become so toxic in popular usage that careful scholars set them to the side.

Second, while I acknowledge that the notion of degrowth is, as Kallis says, “not synonymous with recession or depression,” proponents of the concept could be more assertive in tackling the actual challenges of presently contracting economies. Such engagement would help to bring degrowthist thinkers into closer debate with mainstream macroeconomics. And there is, as any reader of the daily news will realize, no shortage of useful cases. The Japanese economy has been ebbing now for more than a generation. Significant parts of Europe have again tipped into “negative growth” (itself a quite curious expression), and countries like Russia and Argentina are reliable examples to consider. While I fully understand that degrowth (in its unadulterated form) suggests a process of purposefully planned contraction, we are unlikely to encounter such a situation given current growthist commitments. This recommendation suggests a need for greater pragmatism among members of the degrowth research community.

Finally, for all of its talk about system transformation, my reading of the work on degrowth finds it to be insufficiently systemic. Degrowth cannot be simply about the activation and veneration of small-scale experiments, as useful as they may be as proof of concept through practical demonstration. In the contemporary reductionistic world, few people understand the interconnections among, say, the energy subsystem, the financial subsystem, and the agricultural subsystem, but in actual practice all of these spheres are tightly coupled. It is futile to talk about establishing, for instance, 100% reserve requirements for banks without working through the impacts that such a move would have on other subsystems (and how they would respond in kind). Most conventional academics can perpetuate this conceit because they rarely step out of their siloed disciplinary neighborhoods, but visionary thinkers focused on system change of vast socio-technical systems—as I presume is the case for the vast majority of degrowthists—need to be better on this score.



About the Author



Maurie Cohen is Professor of Sustainability Studies and Director of the Science, Technology, and Society Program at the New Jersey Institute of Technology. He is also Associate Fellow at the Tellus Institute, co-founder and Executive Board Member of the Sustainable Consumption Research and Action Initiative (SCORAI), and editor of the journal *Sustainability: Science, Practice, and Policy*. His books include *Sustainability; The Future of Consumer Society: Prospects for Sustainability in the New Economy*; and *Exploring Sustainable Consumption*. He holds a PhD in regional science from the University of Pennsylvania.



Herman Daly

I would like to thank Giorgos Kallis for cogently summarizing the current thinking of the “degrowth movement.” The discussion has been stimulating, and I will mostly build on points also made by others.

1. One welcomes a strong and youthful voice from Europe in opposition to growthism. Their goal of getting off our suicidal growth path and reducing our ecological footprint to a sustainable level, justly distributed, is one I enthusiastically support, and I wish them more success in promoting it than others of us have had to date.

2. The name “degrowth,” as others have suggested, is infelicitous, but it is hard to change names once something has begun. Neither positive nor negative growth is possible in the long run. A steady state can at least last for a long time, although not forever.

3. Degrowth currently pays too little attention to population growth, and this is especially the case if population growth arises from net immigration, as is the case in Western Europe and the US. In the past, some degrowth writings have seemed to advocate a policy of open borders, although a reasoned case was not attempted. It would be good for them to be explicit about such a fundamental policy position. Globalization erases national boundaries to movement of goods (free trade) and capital (free capital mobility), and increasingly to people as well (free migration). Kallis discusses problems of “global governance” without really offering a position for or against globalization as a driver of growth. I see global governance as requiring a federation of nations. But if goods, capital, and people cross national borders at will, then nations are basically dissolved as political units, and there is nothing left to federate—just post-national corporate feudalism in a global commons. Most likely, the degrowth advocates are trying to develop a consensus among themselves on these difficult and divisive issues, and understandably have not yet arrived at one.



4. On the vexed issue of absolute decoupling, ecological economists see GDP as fairly tightly coupled to throughput and loosely coupled to welfare, while neoclassicals believe that GDP is only loosely coupled to throughput but tightly coupled to welfare. There is clearly room for empirical work here. However, I think basic policy does not much depend on the results. We should limit throughput first and foremost. If GDP coupling is loose, that makes things politically easier, but if it is tight, welfare can still increase since it does not depend much on GDP anyway, beyond a basic sufficiency.

In the US and Western Europe, GDP growth is as much a measure of increase in illth as of increase in wealth. Just distribution and efficient allocation should be the policy focus, not growth in scale of the macroeconomy, which should shrink for a while. This would seem to be consistent with the degrowth view.

About the Author



Herman Daly was an ecological economist and Emeritus Professor at the University of Maryland, School of Public Policy. From 1988 to 1994, he was a Senior Economist in the Environment Department of the World Bank. Prior to that, he was a professor of economics at Louisiana State University, where he taught for twenty years. He has served as Ford Foundation Visiting Professor at the University of Ceará (Brazil), Research Associate at Yale University, Visiting Fellow at the Australian National University, and Senior Fulbright Lecturer in Brazil. He was co-founder and associate editor of the journal *Ecological Economics*. He wrote extensively on theorizing the steady-state economy and co-developed the Index of Sustainable Welfare. He held a PhD from Vanderbilt University.



Al Hammond

Bending the direction of growth is not only feasible, but to some degree likely; decoupling from the economic engine of capitalism and from growth (in some sense) is not. Indeed, far from facing a resource crisis, we are drowning in cheap resources—oil, natural gas, sunlight. Moreover, it seems quite clear that the on-going and accelerating pace of science and technological change may be one of the best hopes for shaping the direction of growth. Within twenty years, we will likely have grid scale batteries and solar devices above 35 or 40% efficiency. We will likely have synthetic biology so powerful that we can not only increase food yields but nutritional content and transform many chronic diseases. We may even have workable fusion energy sources, thanks to high temperature superconducting magnets. And we will have mobile access to unlimited information and computing power—which, with a little luck, will translate into really effective self-education systems available to everyone. To me, that education revolution and the spreading transformation of the role of women (it is not yet 100 years since women became legal citizens of the US and could vote) are the really big—and the really hopeful—transition drivers for the next 50 years.

I speak in part based on a current project that I am doing with MIT that has provided a look into where science can go/is going. Unless you are paying very close attention, it is really hard to grasp how rapidly the frontier of knowledge is advancing in dozens of fields. So if we avoid a global war or similar total breakdown of society for another three to four decades, I think it likely that the weight of informed opinion in the world will in fact drive change in more positive directions. For one quick example, who would have guessed that the acceptance of gay marriage in the US has spread even more quickly than the change that made cigarette smoking socially unacceptable two decades earlier? This is an example of what I have called the soft variables that can change far more rapidly than the hard variables of energy and infrastructure.



This is overly condensed—the more detailed and subtle version of the argument is not short—but I suggest we look for ways to bend the curve, not break it.

About the Author



Al Hammond is a serial entrepreneur, a widely published author, and a pioneer in market-based solutions to poverty. He is co-founder and Executive VP for Strategy of Healthpoint Services, which delivers safe drinking water to rural and small town communities in India, and the former leader the Health for All program at Ashoka, a global network of social entrepreneurs. He has served as a consultant to the White House Office of Science and Technology Policy, US federal agencies, the United Nations, major corporations, and private foundations. He holds degrees from Stanford and Harvard Universities in engineering and applied mathematics.



Michael Karlberg

A more coherent conceptual framework for the economy is clearly needed to inform direction and decision-making by both governmental regulators and self-regulating market actors. In this context, the semiotics of degrowth are limited because it connotes a limiting negative vision (what not to do) rather than a generative positive vision (what to do) for the economy.

A more positive vision can be found, in my opinion, in the analogy of an organic body. The economy is in many respects a complex living global system—like a single organic body. Organic bodies go through developmental stages. They require self-regulation at the cellular level and macro-regulation at the systems level. They require coordination. The gross accumulation of resources in different tissues and organs is a sign of disease. From these simple metaphors, one can derive a profound positive vision of the economy that can motivate change at the levels we are discussing.

There is, of course, a need to translate these metaphorical concepts into actual economic policies and practices, and that is not simple work. But that work can only proceed, and will only motivate action, move populations, and attract institutional support, within a coherent conceptual frame. I doubt degrowth provides an adequate overarching frame in this regard. It also does not make sense within the frame of a living organic body, which seems to me to be the most coherent overarching frame for thinking about the economy.

It should be noted, of course, that unlimited material growth also does not make sense within the frame of an organic body. In this context, we would do well to ask what kind of processes need to characterize a maturing body—or a maturing global economy characterized by organic interdependence.



About the Author



Michael Karlberg is Professor of Communication Studies at Western Washington University. His interdisciplinary scholarship examines prevailing conceptions of human nature, power, social organization, and social change—and their implications for the pursuit of peace and justice. He authored the books *Beyond the Culture of Contest* and *Constructing Social Reality: An Inquiry into the Normative Foundations of Social Change* along with numerous articles and book chapters on related themes. His most recent community-engaged research focuses on the role of radical constructive agency in the creation of more peaceful and just social forms.



Rajesh Makwana

This is an excellent article on the immensely important issue of degrowth, with a comprehensive overview that avoids focusing only on local-scale solutions to global-scale problems. Clearly, the vision and principles underpinning the degrowth perspective can contribute much to the discourse on planetary limits and the urgent need for a new paradigm for economic development—especially since it is inherently a political perspective that directly challenges neoclassical economics.

However, in relation to the debate on how to facilitate a great transition, I think the issue of degrowth is likely to be a red herring. As a popular framing that can mobilize a global citizens movement or enable system change on the scale needed, degrowth is limited. Apart from concerns around what might (paradoxically) still need to grow in a degrowth society, which might even include GDP, a key concern is its negative and unappealing framing.

In an interconnected world, any great transition can only happen if it is underpinned by broad principles that have real transformative potential and can mobilize support on a scale never before achieved. Almost half the planet still lives in two-dollar-a-day poverty, and this number increases dramatically if we shift the poverty line upwards. The demand for degrowth is not likely to appeal to the poorest and most disenfranchised—those who will benefit the most from a great transition, and whose support is therefore essential in the creation of a “movement of movements.”

I suggest that the concept and practice of sharing could be used to reframe the degrowth debate, as it embodies critical concepts such as redistribution and participation while also alluding to the need to live within the constraints of “one-planet living.” For example, we could talk about the creation of a “sharing society,” “sharing the Earth,” or even “shared planet economics.” This more positive framing lends itself to an important debate on sufficiency—the



ethic of “enough” versus the materialistic culture of “more.” It also speaks to the many sharing-related reforms that must be part of any transition to a degrowth society (some of which Kallis mentions in his essay)—from redistributing wealth, power, and jobs to sharing knowledge, land, and natural resources. In particular, the frame of global sharing lends itself to the growing recognition that humanity must work together on an international scale if we are to create the conditions to thrive peacefully on a planet with finite resources.

As for the central problem of economic growth, rather than promoting degrowth as a policy framework or a collective demand, the aim should perhaps be for governments to simply deprioritize the pursuit of GDP growth so that it is no longer considered a panacea for prosperity. Instead, public policy should be geared towards more appropriate goals and indicators that focus on the attainment of economic, social, and cultural rights within an overarching global framework of planetary limits. But as Kallis rightly points out, this paradigm shift will not be possible until governments find more effective ways of cooperating on global issues and reforming systems of global governance so that they are far more inclusive and democratic than is currently the case.



About the Author



Rajesh Makwana is an independent writer and activist, and the former executive director of Share The World's Resources, a civil society organization campaigning for a fairer sharing of wealth, power and resources within and between countries. He is a passionate advocate for applying the principle of sharing as a solution to a range of global crises, from poverty and inequality to climate change and conflict over land or natural resources. He has written numerous publications, chaired panel discussions, and promoted the concept of economic sharing in debates and presentations in the UK and overseas.



Mary Mellor

I welcome particularly two aspects of Kallis's paper: the attention to care and the need to work at other levels as well as the local.

I want to begin with a few points on care:

(1) I don't think many degrowthers realize how heavy a burden care work will be without domestic equipment—cookers, washing machines, hot water, vacuum cleaners, etc. This is not an argument to keep them, but domestic work is going to take a lot of the day. In most communities, this falls to women. I am troubled by how much attention in the literature is given to welcoming increased leisure time by male authors.

(2) Health care and other public services are not easily localized—specialist care and specialist training in particular.

(3) The local has often been oppressive for women: a lot of gender equality was about breaking free.

(4) On a more positive note, there is no reason why a provisioning economy could not be built on care as a source of wealth; while de-growing in resource terms, we could grow in care terms.

The key is where money enters the economy. At present, new money emerges through a commercial circuit of investment/loans profit/repayment and trickles out to public services.

My proposal is to expand the public money circuit (public money creation—public/social expenditure—retrieval through taxation). If this were directed to education or care, that would become the source of wealth, with money trickling out to the commercial sector. Quantitative easing shows how easily monetary authorities can create new money; they just need to give it to the people not the banks. What neoliberalism calls a deficit is better thought of as surplus public



expenditure, money in circulation not extracted through tax. This debt-free money can be used for the exchange of use value.

About the Author



Mary Mellor is Emeritus Professor at Northumbria University, where she was founding Chair of the University's Sustainable Cities Research Institute. She has published extensively on alternative economics integrating socialist, feminist, and green perspectives. She is a founding member of the newly formed World Economics Association and is on the editorial board of several journals. Her books include *Feminism and Ecology*, *The Future of Money: From Financial Crisis to Public Resource*, and *Debt or Democracy? Public Money for Sustainability and Social Justice*. She holds a PhD from Newcastle University.



Robert Nadeau

Some participants in the dialogue about Giorgos Kallis's essay felt that the "degrowth alternative" could be embraced by the peoples and governments in prosperous countries as the threats of climate change become more apparent and the advantages of living in a more humane, equitable, and environmentally responsible society are better known. However, the majority view seems to be that degrowth is a nonstarter in a world in which the "ideology of growth" is sanctioned and promoted by mainstream economists and massively informs the priorities and decision-making processes of virtually all political leaders and economic planners. The consensus here seems to be that the only viable means of preventing an ecological disaster that could soon threaten the lives of hundreds of millions of people during the timeframe in which this will remain a possibility is to promote economic growth that produces "fewer of the bad things" and "more of the good things."

I am among those who share this view. There is, however, a large problem that must be resolved in any successful effort to promote economic growth predicated on a meaningful distinction between the bad things that are undermining the capacity of the biosphere to sustain our existence and the good things needed to preserve and protect that capacity. The problem is that there is no basis in the economic theory used by mainstream economists, neoclassical economics, for recognizing this distinction. The little-known reason why this is the case is that this theory was created by substituting the economic construct of utility for the physical variable of energy in the equations of a badly conceived and soon-be-outmoded theory in mid-nineteenth century physics.

The theory in physics was developed from the 1840s to the 1860s in a failed attempt to account for the phenomena of heat, light, and electricity by positing the existence of a vaguely defined field of protean energy. A number of well-known physicists and mathematicians told the



economists (Stanley Jevons, Leon Walras, Francis Ysidro, and Vilfredo Pareto) that the economic construct was utterly different from the physical variable and that it was not possible to assume that utility could be substituted for energy in the equations borrowed from the theory in physics. However, the economists refused or, more probably, failed to comprehend, how devastating this criticism was and proceeded to claim that they had transformed the study of economics into a rigorously mathematical scientific discipline like physics.

As it turned out, the origins of neoclassical economic theory in mid-nineteenth physics were forgotten, subsequent generations of economists buried what we now know to be unscientific assumptions about the dynamics of market systems under an increasingly more complex maze of mathematical formalism and the totally unsubstantiated claim that the theory is scientific was almost universally accepted. Unfortunately, this is not an esoteric intellectual problem with no real world consequences.

It explains why the mathematical formalism used by mainstream economists is predicated on the absurd assumption that unlimited economic growth is possible and desirable in a finite biosphere. It explains why there is no basis in this mathematical formalism for even recognizing that economic decisions are frequently informed by and even predicated on concerns about equity and fairness. It explains why mainstream economists have routinely dismissed or ignored the work of ecological economists and new economy theorists that appeals to these concerns to justify the implementation of environmentally responsible economic programs and public policies. And it also explains why the claim that the rigorously mathematical theories used by mainstream economists are scientific and value-free is bogus and only serves to disguise the fact that these theories mitigate against equitable distribution of scarce environmental resources and enhance, as Piketty has shown, the wealth, power, and influence of financial elites.

At this point, I should stress that the intent of this discussion is not to question the moral or intellectual integrity of mainstream economists. It is to briefly make the case that there are two



vitality important reasons why those of us who care about the human future must become familiar with the history of neoclassical economic theory. The first is that this history reveals that the ideology of growth which holds much of the world in thrall is predicated on false beliefs and assumptions about economic reality embedded in the mathematical formalism used by mainstream economists. And the second is that this history provides a coherent basis for challenging the validity of these beliefs and assumptions and promoting the good economic growth needed to replace fossil fuels with renewable energy resources, preserve and protect biological diversity, restore forests and wetlands, provide the global human population with adequate supplies of food and potable water, and eliminate conditions of extreme poverty in poor countries.

About the Author



Robert Nadeau is a Professor Emeritus at George Mason University. He has attempted throughout his career to bridge the knowledge gap between what British physicist and novelist C. P. Snow termed the two-cultures of humanists-social scientists and scientists-engineers. Nadeau created and directed four academic departments and programs that specialize in interdisciplinary studies and has published ten books that deal with a wide variety of subject fields on both sides of the two-culture divide. His most recently published books, *The Wealth of Nature* (2003), *The Environmental Endgame* (2006), and *Rebirth of the Sacred* (2013), make the case that the theory used by virtually all mainstream economists, neoclassical economics is predicated on unscientific assumptions about the dynamics of market systems that effectively preclude the prospect of implementing scientifically viable economic solutions for environmental problems.



Robert Paehlke

I very much appreciated Giorgos Kallis's piece and the resultant discussion. My take on economic growth is somewhat different from what Kallis articulates. In broad terms, if degrowth means comfort with slow growth, I welcome it, but I do not think that economic contraction is either necessary or likely.

I am agnostic about economic growth measured monetarily so long as growth in energy and use of raw materials is reversed. I accept studies by the Wuppertal Institute suggesting that this is possible. I think it could be achieved using "throughput" taxes on energy and material inputs and waste outputs. Such a view is a very long way from neoliberal approaches to economic policy, but it does leave some room for economic growth and for some form of capitalism.

Would successfully capping energy and material throughputs halt economic growth? In the end, I am open to the possibility of what Herman Daly calls "angelized" GNP. That is, declining material throughputs do not exclude the possibility of slowly growing economies, at least for the next twenty to fifty years.

Some products, services, and sectors would, of course, shrink significantly—including mining, fossil energy, airline travel, cross-planetary shipping of heavy, low-cost goods, and the like. Other relatively benign sectors would not be severely impacted (though they would adapt by shifting towards new production methods, more durable products, and recycled inputs).

The third category is where things get interesting. Again, my take differs somewhat from that of Kallis. He sees local food, renewable energy, and human-to-human care as within the degrowth paradigm. I would add to his list other sectors including new media. Kallis sees these undertakings as often demonetized and not-for-profit undertakings. I see them as just as often entrepreneurial, usually small-scale.



I know many people engaged in such activities. I patronize their businesses and have invested in them (or donated in the case of non-for-profit ventures). None of the enterprises that I know most intimately produce what anyone would call wealth, but those involved would not be appalled at making a profit. Most, but not all, of those engaged with these enterprises are environmentally inclined (and politically left-of-center).

The way I have come to understand this “new economy” is not as anti-capitalist, or degrowth. It is a new economic realm that provides meaningful work often where it is desperately needed—among the young. Those involved are open to earning a good living, but are equally intent on balancing that objective with socially and environmentally-minded considerations. On a more theoretical plane, I have come to distinguish between the established corporate-dominated economy and new entrepreneurship led by environmentally and socially mindful organizations.

I think Kallis and I agree on the main point of distinction for this new sector: it is important because its activities are relatively benign environmentally and it fills material needs that sectors that must decline presently provide. The new enterprises provide those goods and services with greatly reduced inputs of energy and raw materials, including land. Those needed goods and services include food, shelter, and transportation. The food is primarily plant-based, local, and organic; the shelter urban rather than suburban; and the transportation transit or active transportation options, not travel dominated by automobiles and air travel.

The sector for me includes the economic activities that Kallis includes but also the production and servicing of windmills, solar panels, bicycles, bicycle and walking infrastructure, energy efficient multi-family urban dwellings, transit systems, and even small electric cars (leaving it up to users to use them with restraint). Not all of these enterprises are necessarily small, though, like local agriculture, solar panel installers, and wind energy co-ops, many are.



Reconfigured, post-suburban neighborhoods hardly need automobiles. The enterprises that rebuild neighborhoods, and supply the materials to do so, are expanding. Given that a high proportion of those that live in such places (and more and more are doing so) will not need automobiles on a daily basis, some sectors will shrink. Two of my three adult children do not even have driver's licenses. Yet zip cars and the like are increasingly available in most urban neighborhoods. Car production will not disappear, nor need it. The number employed in food production is again growing.

Will the net result of these many shifts be growth or degrowth? I am agnostic; I just do not think we can know in advance. We know that many large corporations will be challenged and some will disappear. Capitalism itself (in some form) may well, however, survive. The speed at which entrepreneurs can adapt is important to changing an economy. Our greatest challenge is to find ways to keep large corporations from almost literally owning governments and blocking needed changes. If allowed to innovate and adapt, humans are very good at finding alternative ways to meet human needs, and even human whims.

About the Author



Robert Paehlke, a political scientist, is Professor Emeritus of Environmental and Resource Studies at Trent University in Peterborough, Ontario, Canada. He was editor of the environmental journal/magazine *Alternatives* from its founding in 1971 until 1982 and continues to serve on its editorial board and blogs on the politics of the environment. He is author or editor of seven books, including *Hegemony and Global Citizenship: Transitional Governance for the 21st Century* (2014); *Some Like It Cold: the Politics of Climate Change in Canada* (2008); *Democracy's Dilemma: Environment, Social Equity and the Global Economy* (MIT Press, 2004) and *Environmentalism and the Future Of Progressive Politics* (Yale UP, 1991). In 1995 he edited *Conservation and Environmentalism: An Encyclopedia*.



Richard Rosen

If “degrowth” is the answer to the question of what the economies in fairly rich countries should do in the near future, then we are asking the wrong question. We need to take a much more nuanced view about what sustainable development (not sustainable growth) should imply for the economy in both the near term and the longer term. Thus, if “degrowth” means that the GDP should go down over the next few decades, then we need to take an analytical approach based on a more disaggregated view of the GDP.

I think it is clear that, even in rich countries, some components of the economy, such as education, health care, elderly care, and the arts, need to go up significantly. This is true also for organic food production, especially for nourishing foods that many poor people in rich countries cannot currently afford. We must take the impact of income inequality in rich countries into account in our approach to “degrowth.” For the rest of the world, the above sectors must increase even more rapidly.

Two other components of the economy that should go up strongly for the next several decades in all parts of the world are the renewable energy sector and the energy efficiency sector. Because of the need to replace existing fossil energy supplies with renewables, and to meet the growth in energy demand that is required in underdeveloped countries, massive investments in renewables and efficiency, net of the decline in the fossil fuel sector of the economy, will likely lead to an increase in GDP. A better way to look at the desirability of GDP growth or decline would be to consider which sectors of the GDP need to grow, which should decline, where and when throughout the world, and for how long. What the net effect on global GDP will be year-by-year over the next few decades is anyone’s guess, but it does not really matter as long as people lead ever better and more sustainable lives, and if the world’s ecological systems can be restored to health quickly enough to save most disappearing species and to prevent significantly more climate change.



In addition, I feel that the term “degrowth” is most unfortunate from a political perspective, for it is more likely to turn people off from supporting the valid aspects of the politics behind it than to turn them on. Since, by far, most people in the world do not have enough of many goods and services necessary for an adequate and sustainable life, the term “degrowth” will surely convey the intention that they will never be able to have such a life. Yet, given what I have said above, this turnoff is totally unnecessary, and inaccurate besides, relative to what needs to be done. It would be much easier to reach people politically if we make it clear that we need fewer of the “bad” things the world currently produces and more of the “good” things. Then we could focus on the important debate, which is what are the “bads” versus the “goods,” how much of each does each region want or need, and how do we get to these goals.

About the Author



Richard Rosen is a former Fellow and founding board member of the Tellus Institute. He has thirty-five years of experience in energy sector resource planning and management, as well as environmental compliance. In the 1990s, Dr. Rosen’s research has focused on the economics and feasibility of restructuring and deregulating the electricity utility industry. In a wide variety of regulatory and public planning settings, he has presented detailed analyses of alternative energy supply options, renewable resources, environmental impacts, energy efficiency technologies, and integrated electric power plans. His current research focus is on alternative economic visions and models for the global economy over the long-term, including new approaches to the allocation of capital needed for sustainability and the regulation of investments. He holds a PhD in Physics from Columbia University.



Tilman Santarius

I have enjoyed both Giorgos Kallis's essay and the stimulating debate. Two issues seem particularly interesting to me.

First, the debate seems to mirror an interesting transatlantic distinction: Why is it that the degrowth debate is so "European"? To be sure, a number of scientists and NGO representatives in the US support degrowth, and there are some very good publications coming out of the US. Yet overall, it seems to remain a rather small niche here. In contrast, degrowth on the other side of the Atlantic is highly en vogue. Most degrowth-related publications nowadays come from "old Europe," and at last year's Degrowth Conference in Leipzig, the 2,700 participants from all over the continent broke records.

Second, whether we can remain agnostic to growth, or support continued (green) growth, all depends on the issue of decoupling. Is it possible to decouple (gross national) income from energy and resource consumption? The literature conventionally distinguishes between absolute and relative decoupling. Yet I think for industrialized countries with high ecological footprints, this question has become obsolete. Relative decoupling is not an option anymore, because we are already living in overshoot (however, the concept of relative decoupling might still be valid for poor and resource-low countries). Absolute decoupling might not be enough either, if energy and resource use only slowly declines, e.g., proportionally to GDP growth. We need to reduce resource use and greenhouse gas emissions by a factor of ten in less than four decades. Industrialized countries, therefore, actually need "radical absolute decoupling": if GDP keeps growing by, say, 3% per year on average, resource and energy use must decline several times more steeply than GDP goes up.

How likely is such "radical absolute decoupling"? At least three factors militate against it.



(1) **Rebound effects:** As long as the economy keeps growing, energy and resource efficiency improvements will be countervailed by increased demand, so-called rebound effects. Although I think that backfire (rebound > 100%) is not the norm, even moderate rebound effects in the order of 20 to 60% will thwart a radical absolute decoupling.

(2) **Geographical Leakage:** A global cap on emissions (and, eventually, on other environmentally damaging resources) could eventually prevent rebound effects. Yet those of us who believe in global environmental justice (including climate justice) suggest that such a cap is not fair today; instead, common but differentiated responsibilities and capabilities should apply. Fairness requires that, for some good number of years down the road, different environmental standards remain in the Global North and South. Given this, as well as cheaper labor costs in the Global South, the tertiarization of industrial economies will continue. Radical absolute decoupling in the Global North will be much more challenging if embodied energy and resource use in trade is factored in.

(3) **Shifting of environmental media:** The transition of energy systems from fossil to renewable sources will reduce GHG emissions, but at the same time increase the use of other natural resources. However, most of natural resource use ought to decline. If sustainability is not only pictured through the lens of climate change, but is also geared towards protecting terrestrial ecosystems, oceans, biodiversity, human environmental health, indigenous cultures, etc., a radical absolute decoupling of multiple natural resources at the same time appears very challenging.

I am not sure if there are any degrowth supporters who demand to start shrinking the economy immediately. Rather, as Giorgis Kallis has pointed out, degrowth is a vision, a paradigm shift. This paradigm shift starts from the fact that radical absolute decoupling is by and large utopian. To be sure, this does not make the task at hand any easier. If growth rates fall below 3% on average, current systems of pension funds, public spending, financial markets, etc., have to be



rethought. The challenge is tremendous. The transition towards environmental sustainability requires much more than environmental policymaking.

Alas, what is a viable alternative if radical decoupling doesn't work? "Green growth," selective/smart growth, etc., would have been great concepts back in the 1980s. Too bad, that it is already 2015, and that ecological footprints have been rising and rising and rising. Standing close to the edge of the precipice, merely walking slower, smarter, or with environmentally sound shoes, won't do.

About the Author



Tilman Santarius is a scientific author who has written on topics such as climate policy, world trade, sustainable economics, and global justice. He is the co-author of the book *Fair Future: Limited Resources, Security, and Global Justice* (2007) and the Heinrich Böll Foundation report "Slow Trade – Sound Farming: A Multilateral Framework for Sustainable Markets in Agriculture" (2007). From 2001 to 2009, he served as Senior Research Fellow at the Wuppertal Institute for Climate, Environment and Energy. From 2009 to 2011, he was Head of International Climate and Energy Policy at the Heinrich Böll Foundation. Since 2007, he has served as member of the board of the environment and development NGO Germanwatch. Since 2011, he has been working on a PhD project on the "rebound effect" at the University of Kassel. During the 2013/2014 academic year, he was a Visiting Scholar at the University of California, Berkeley.



Ernst Ulrich von Weizsäcker

At the Club of Rome, we have a lively discussion over “decoupling.” We had an international conference on the topic at the Volkswagen Foundation’s premises in Hanover some five months ago. Decoupling is technically possible, I suggest, by a factor of five to ten (materials ten, energy five), or more (greenhouse gases). But much of this is likely to be eaten up by rebound effects (the Jevons paradox).

So what can we do about limits to growth in our day? One issue we need to address is population. This reminds me of a graph in Michael Hermann and Reiner Klingholz’s upcoming book *Consequential Omissions: How Demography Shapes Development* – Lessons from the MDGs for the SDGs. It shows that Sub-Saharan Africa had nearly 100% population growth during the last twenty-four years and essentially no progress on Millennium Development Goals. East Asia had some 15% population growth and huge success in development. The other regions fell somewhere in between: the stronger the population growth, the weaker the development success. The question remains: which way is the causality?

Furthermore, in the context of decoupling and addressing the rebound effect, I have continued to advocate increasing energy and other resource prices (with socially acceptable price privileges for the poor and clever incentive measures for resource intensive industries). The proposal is to raise these prices in line with documented efficiency increases, thus prompting a “ping-pong” between prices and efficiency—in analogy to the “ping-pong” over 150 years between labor productivity and wages—leading to a roughly twenty-fold increase of both. The countries going for the new ping-pong, I expect, will become economically stronger, not weaker in the process.

For degrowth strategies (in the affluent countries), one of the most important measures would be reliable incomes for all, partly decoupled from productive work, thus reducing the political “need” for growth.



About the Author



Ernst Ulrich von Weizsäcker is former dean of the Donald Bren School of Environmental Science and Management at the University of California, Santa Barbara and current co-president of the Club of Rome. During the 1970s, he was president of the University in Kassel before taking up the post of Director of the UN Centre for Science and Technology in New York. From 1984 to 1991, he was the Director of the Institute for European Environment Politics, and from 1991 to 2000 Prof. von Weizsäcker was the President of the Wuppertal Institute for Climate, Environment and Energy. From 1998 to 2005, he was a member of the German Parliament. He is the author of many books and publications and was honored with the Takeda Award in 2001. He has a PhD in biology from the University of Freiburg.



Allen White

As Giorgos Kallis points out, the dominance of economism and associated metrics such as GDP neglect the preservation and enrichment of capitals other than economic, e.g., human, natural, and social. A multiple capitals framework provides a foundation for understanding and reconstituting our notion of wealth and the wealth creation process.

Turning the tide toward such a holistic framework will be neither rapid nor easy. Paradoxically, the flaws of conventional wealth metrics also explain their resilience: elegance, simplicity, quantifiability. Computing and monitoring GDP is far less complicated than doing the same for human, natural, and social capital, for which generally accepted definitions and measurement techniques remain unsettled. And these same complexities operate to the benefit of the vested interests that prefer to retain conventional wealth metrics and, more broadly, the economic worldview they embody.

Even within the narrow confines of GDP and kindred measures, not all transacted dollars, Euros, or renminbis contribute to human and ecological well-being. And not all forms of accumulation, a defining attribute of capitalism, are bad. GDP growth associated with production of land mines, clear-cutting forestry, and jail construction bear no resemblance to wealth created by school construction, public health programs, and biodiversity research in terms of enriched lives and, in Kallis's terms, caring, regeneration, and meaning. This distinction is not new. It has been made time and again by scholars and practitioners long before the contemporary degrowth debates. Yet economic reductionism and the metrics it advocates remain firmly entrenched in the mindsets of government, business, and the media.

But hopeful signs are identifiable. More nuanced definitions of wealth populate the literature on societal well-being and human development. At the micro (firm) level, they are finding their way into the business world via initiatives such as the Global Reporting Initiative, the International



Integrated Reporting Council, and the Sustainability Accounting Standards Board. Enterprises such as Mondragon (Spain), Novo Nordisk (Denmark), and Natura (Brazil) have built their organizations based on such integrating thinking. They behave, however imperfectly, as human capitalists, natural capitalists, and social capitalists. In the business world, unfortunately, these kinds of firms are the rare exceptions in an otherwise economics and finance-dominated culture.

Of course, the character of enterprise depends on the character of those who create and steward it. As in the case of enlightened global governance, there can be no transformation of firms without personal transformation and value shifts in the direction of equity, solidarity, and ecological sensibility. Multiple capitals offers a prism through which the mainstream obsession with growth and accumulation may shift from an unsustainable path toward global degradation to a redefinition of the firm as a generator and steward of natural, human, and social capital. With supportive governance structures, this scenario might trend toward a form of growth that aligns with the “limits” and “care” concepts embedded in Kallis’s definition of degrowth. Perhaps it is regenerative growth, or “regrowth,” rather than degrowth, that should guide our collective thinking toward a just and sustainable world.

About the Author



Allen White is Vice President and Senior Fellow at the Tellus Institute, where he directs the institute’s Program on Corporate Redesign. He co-founded the Global Reporting Initiative and Corporation 2020, and founded the Global Initiative for Sustainability Ratings. He has advised multilateral organizations, foundations, government agencies, Fortune 500 companies, and NGOs on corporate sustainability, governance, and accountability. Dr. White has served on boards, advisory groups, and committees of the International Corporate Governance Network, Civic Capital, Instituto Ethos (Brazil), the New Economy Network, Business for Social Responsibility, and the Initiative for Responsible Investment at Harvard University. Dr. White has held faculty and research positions at the University of Connecticut, Clark University, and Battelle Laboratories and is a former Fulbright Scholar in Peru.



Anders Wijkman

Being a follower and supporter of Herman Daly for many years, and being active in the leadership of the Club of Rome, I am of course very much in agreement with the view that infinite growth on a finite planet is not possible. However, going back to the *Limits to Growth* report in 1972, it is important to note that what the report primarily did was not question growth per se, but rather the growing footprint of humanity.

At that time, the footprint was within the planetary boundaries. But developments since have led to overshoot and an increasingly risky situation in terms of climate change, overuse of central ecosystems, resource depletion, and loss of biological diversity. Most of the overshoot is due to wasteful lifestyles in industrialized countries. Poverty is still rampant—more than 3 billion people live on less than 2 US dollars a day.

To do away with poverty will require energy and materials. The North-South tension around these issues should not be underestimated. I have participated in quite a number of conferences on resource efficiency in recent years, where the hostility from Southern participants has been obvious. A more resource-efficient economy is seen by many as a threat to their development. The discussion must take this into account and avoid language that will polarize the debate.

Technology can and will help enhance resource efficiency. The rapid technology shift—the digitization of the economy—offers a lot of opportunities. The same goes for advances in energy technology, in particular solar energy and energy storage. But technology alone will not suffice. We need redistribution of wealth and income, and we need a shift in values, thus leaving behind a culture dominated by excessive consumerism. But to achieve that under the motto of “degrowth” is, in my opinion, going to be very difficult.

As Tim Jackson writes in *Prosperity without Growth*, “[g]rowth is environmentally unsustainable, but degrowth is socially unstable.” We have built a society where growth is necessary—whether



we talk about corporations, employment, taxes, government budgets, financial markets, or pension funds. Society in general is dead against degrowth.

But there is another aspect, more on the level of the individual. Most people want things in which they are involved to grow, and definitely not the opposite. Growth is not negative per se. What is negative is when growth is only appreciated and measured for its quantity, not its quality.

A major problem—something we have discussed for decades, but with no change happening—is how we measure growth. GDP is definitely not a good indicator for measuring wealth. On the contrary, there are many shortcomings. The fact that we do not assess annually how the stock of natural capital develops is a disaster.

We want many things to grow—public transport, renewable energy, health, education, natural capital, etc. By replacing GDP with a set of welfare objectives, including a stable climate and healthy ecosystems, we would start moving in the right direction.

By changing business models—offering services instead of selling more stuff; moving towards a circular economy—we would move the business sector in the right direction.

So there are indeed positive things we can do to start changing course. Such changes would be of a positive nature and not—like degrowth—be perceived by the public at large as negative. Dr. King did not have a “nightmare”; he had a “dream.”

Change, in my opinion, can only be brought about through a narrative that is positive. And that narrative has so far been missing.

So instead of a degrowth campaign, I would urge us to develop together a positive narrative where growth and development are discussed in qualitative rather than quantitative terms. Part of that narrative, no doubt, will have to be to curb energy and material throughput. But the strategy has to recognize the dangers in the short term of degrowth—“socially unstable”



according to Jackson—and the importance of charting out a transition course that is credible over the long term.

About the Author



Anders Wijkman is the former co-president of the Club of Rome and is currently the chairman of the Swedish Association of Recycling Industries and a member of the Board of the Swedish Development Authority. In 2015, he was appointed chair of the Swedish Cross-Party Committee on Environmental Objectives. He has served as a Member of the European Parliament, Assistant Secretary-General of the United Nations and Policy Director of UNDP, Secretary General of the Swedish Red Cross, and Director General of the Swedish Agency for Research Cooperation with Developing Countries. He is a member of the Swedish Royal Academy of Sciences, the World Future Council and the International Resource Panel and an honorary doctor at Linköping University. His recent books include *Bankrupting Nature: Denying Our Planetary Boundaries*, with co-author Johan Rockström, and *Come On!*, a report from the Club of Rome.



Author's Response



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Degrowth is a “missile concept” to open up a debate silenced by the “sustainable development” consensus. The lively debate triggered by my viewpoint suggests it is doing well. Here I will respond to five overarching critiques, clarifying and advancing the case for degrowth.

Degrowth is subversive

The first critique is that degrowth signifies a “limiting negative vision” (Michael Karlberg), a nightmare, rather than a dream (Anders Wijkman). This depends on the eyes of the beholder. For the 3,500 participants [in the latest degrowth conference](#), growth is a living nightmare and degrowth, the dream. Degrowth unsettles the commonsensical gaze which sees growth as good. To quote Ursula Le Guin, the intention is to “put a pig on the tracks of a one way future consisting only of growth.” Growth has more social costs than benefits, as Herman Daly documents. It brings us closer to climate disaster, as Kevin Anderson and Naomi Klein show. Then why do we still have to protect it is a positive vision?

For two reasons, suggest some commentators to my essay. The first is that degrowth scares many people who still think that growth is good. The second is that “the system is dead against degrowth” (Anders Wijkman). Well, if our role as scientists and educators were to please the public opinion and cater to the powers that be, then the earth would still be flat. Degrowth, as Serge Latouche puts it, is an atheist claim against the secular god of Growth. Growth has substituted for religion in modern societies, providing meaning to all collective endeavours. Degrowth is intentionally subversive; it inverses what is seen as good and what as bad. “Degrowth” initially may not sound nice in this or that language. The point is to make it sound nice. If I judge by a [recent article](#) in The Guardian, which argues that degrowth is a “cute word,” then we are succeeding.



Degrowth is not an ultimate objective. “Sharing,” “commons,” or “conviviality” are positive visions used by the degrowth community. Yet if these futures are to come, they will come with a dramatic reduction of material and energy throughput and a radically “simpler way” of living. The fixation with Growth is *the* main obstacle to a Great Transition. Overcoming the fear of degrowth, and turning the grief of living with less into joy, is a first step.

Fewer of the bad things + more of the good ones = Degrowth

The second criticism, expressed by Rich Rosen and many others, is that it is not growth per se that is bad, but the current un-economic growth. Care, renewables, and organically-grown food will need to grow in a Great Transition; we need “fewer of the ‘bad’ things...and more of the ‘good’ things,” Rosen argues. Who would disagree? Problems start when what we think is good, others think is bad. Liberalism, embodied in consensual notions such as “sustainability,” professes an apolitical neutrality to competing interests. Degrowth, instead, is a partisan claim: these things that typically count as “Growth” (highways, bridges, armies, dams) are bad for “us” degrowthers. Things that are considered anachronisms in the arrow of progress—communal institutions, fresh local food, small cooperatives, or windmills—are good. Perhaps degrowth is an imperfect term for signaling this. Still, it is better than neutral terms like “sustainability,” or “transition” on its own.

Another problem with “the good things argument” is that it is couched in growth terms. 2% annual growth doubles a “thing” every 35 years. If Egypt started with one cubic metre of possessions and grew them by 4.5% per year, by the end of its 3,000-year civilization, it would need 2.5 billion solar systems to store its stuff. Perpetual growth, even of organic food, is an absurdity. It is time to abandon the idiom of growth and focus on good things that need to flourish to a quantity and quality sufficient for satisfying basic needs.

I doubt that the economic conversion that Rosen advocates, and with which I concur, could sustain growth. If it could, then this means that absolute decoupling—whereby the growth of



economic activity continues and resource use declines—would be possible. Tilman Santarius and Ernst von Weizsäcker in their commentaries explain why this is unlikely. Let me add three more reasons.

First, a renewable economy will produce less energy surplus (energy return on energy investment) than the fossil fuel economy. An economy with lower energy surpluses will be more labor-intensive, and hence smaller.

Second, a static, disaggregated snapshot of the economy is misleading. It might appear that more GDP from renewables, education, and health and less from the military equals net—and “angelized”—GDP growth. This is wrong. Solar panels, hospitals, or university labs are end-products in long chains utilizing primary and intermediate inputs that are energy and resource-intensive. With the danger of overstretching my examples, Britain’s emblematic National Health Service was subsidized by oil secured with arms through the Suez.

Third, a transition from, say, a resource-intensive economy of SUVs to a “weightless” economy of Priuses and Kindles would reduce throughput, but only for a while. Once the transition is complete, any further growth of the Prius-Kindle economy, however resource-light, will still grow throughput.

Herman Daly is right that there is “room for empirical work here.” I am willing to follow Bob Paehlke and be “agnostic” about the effects on GDP of a shift to “good things.” I am not sure, however, that “what the net effect on global GDP will be year-by-year...does not really matter as long as people lead ever better and more sustainable lives” (Rich Rosen). “We” might wish to be agnostic, but the conservatives who defend the vested interests that feed on growth are not (witness the reactions to climate legislation). Also, “we” might not care whether GDP rises or falls, but in the world we live in, GDP falls are problematic (witness Greece). If a Great Transition is to take place, then we have to contemplate the institutions and socio-political processes that will make the degrowth that *may* come with it socially sustainable.



Beyond GDP means beyond Growth

The third critique is that the problem is GDP, not growth. If we could only measure the goods an economy provides, say “massages,” and count out all the bads, say “oil spills,” then there would be no reason not to want growth.

First, perpetual growth, of *whatever*, even of an “angelized” GDP, is an absurd objective. I do not look forward to an Earth with people frantically giving enough massages to satisfy 2.5 billion solar systems.

Second, GDP counts what counts for the current economic system: capital circulation, whatever its source. The decision of the EU to count drugs and prostitution in GDP, but not unpaid care work, is illustrative. GDP counts total monetized value. This is what feeds corporate profits and public coffers, and this is what governments want to secure and stabilize. The metric is an epiphenomenon; it is the result of the social system, not its cause. This is why GDP persists despite criticisms from prominent economists.

I agree with Bob Nadeau that mainstream economics with its reductionist obsession with maximizing a homogeneous quantity called utility (aka “money”) is part of the problem. Yet I would go further. The emergence and entrenchment of the neoclassical orthodoxy has to be situated within its social context: the triumph, first, of growthism and, then, of neoliberalism. Maximizing money is what the system cares about. As Serge Latouche puts it—tellingly, if somewhat exaggeratedly—economists are the priests of the religion of growth. A different type of economics will be part and parcel of a transition to a different social system.

“We” should degrow, but not so that “they” grow.

Commenting on my essay, many argued that degrowth is irrelevant for the great part of the world still living in poverty. The argument is that while “we” (wealthy, overfed Northerners) may



have to degrow, “they” (poor, underfed Southerners) still want and need to grow. This is the most powerful discourse that perpetuates the ideology of growthism. It has to be discarded.

We all—to some degree, or at some periods—feel like “Southerners.” My Greek compatriots tell me degrowth is not for us, for we are now poor and in crisis. The 99% in the US has good reasons to believe that it is the 1% that has to degrow so that it can grow. Even when millionaires are surveyed on how much money they need in order to feel economically secure, they typically state twice what they already have, irrespective of their actual income. Positional comparisons drive and perpetuate the quest for growth. Economic insecurity, at all levels of income, makes everyone run faster and faster so as not to fall. And economic crises, when standards of living suddenly fall and insecurity intensifies, are the moments where the quest for growth reappears most forcefully, as a progressive cause this time. There will never be a time for degrowth.

The people on this planet, perhaps a majority, who lack access to basic goods, such as water or public health, deserve them, and this might entail higher energy and resource use. This need not be couched though in the absurd terms of growth. It is a matter of redistribution and sufficiency. “We” need to degrow so that “Southern” cosmologies and political alternatives closer to the spirit of sufficiency (such as Sumak Kawsay or Ubuntu) can flourish. Southern alternatives are colonized intellectually by developmentalism and materially through the extractive industries that in the name of growth bring destruction and poverty.

I propose the same logic for countries in economic crisis. We do not need to grow our way out of economic crisis in Greece. We need to come up with alternative models of sufficiency rooted in Greek tradition, materialized into institutions that will let us prosper without growth.

I am wary of those talking in the name of others reminding me that unlike what I—an elite intellectual—think, “poor people” (sic) dream of plasma TVs and Ferraris and we can’t deny them their dreams. Most people that I know, including myself, do indeed have materialistic dreams:



our positional societies force those on us if we are to remain its dignified and secured members. Fortunately, we also have a longing for a simpler life, for community, friendship, and many other needs that collide with the imaginary of growth. The question is how to change social structures and institutional contexts so that it is these latter aspirations that come to be fulfilled and not our worst acquisitive desires.

A transition beyond growth is a transition beyond capitalism

Capitalism is an ensemble of property, financial, and exchange institutions that create relentless competition, forcing enterprises to grow or die. The surpluses generated by this dynamic are constantly reinvested into further growth. A society without growth may still have markets, forms of private property, or money. But as Edward and Robert Skidelsky put it, an economic system which does not grow and in which capital no longer accumulates is no longer capitalism, whatever one might want to call it. Property, credit, or employment institutions will have to be reconfigured in radical ways so to make the system stable without growth. Proposals such as a basic citizen's income or the public control of money (Mary Mellor) are such radical reforms.

Benign enterprises such as Mondragon or Novo Nordisk, which combine economic with social and environmental considerations “are the rare exceptions,” as Allen White notes in his commentary, for a reason. In a capitalist economy, the bottom line is profit. Environmental and social concerns can be accommodated by few players who can increase their market share by cashing on socially-responsible consumers. As George Monbiot put it, capitalism can sell many things, but it can't sell less.

If the corporation signifies the globalized growth economy, the sharing cooperative is the emblem of a localized, degrowth economy. Bob Paehlke argues that sharing enterprises that he knows do not necessarily espouse degrowth values, and they seek some profit. My argument was not behavioral, but structural: in an economy that will no longer grow, worker or consumer



cooperatives, which do not depend on perpetually growing profits, have a natural advantage. Some sharing enterprises have features that make them apt for a degrowth transition. Not all. I distinguish the sharing economy from the “rental economy” of AirBnB and similar capitalistic corporations, which, however innovative, reproduces rent-seeking and the dynamics of perpetual surplus creation.

A sidetrack on population and immigration

I consider Herman Daly my intellectual mentor, even though I haven't met him. I agree in almost everything with him minus his stance on immigration. We have exchanged emails, and I owe him a more “reasoned case,” as he asks in his commentary. Here are a few thoughts.

First, if our concern is planet Earth, and not the forests and rivers that happen to be within the borders of our “imagined” national community (to borrow a term from Benedict Anderson's classic), then immigration is good. Resources are used much more efficiently in advanced economies. For a given income, more resources will be saved by letting people come where efficient technologies are used, than by waiting for their economies to grow and become more efficient.

Second, immigration and remittances are a fast and resource-efficient mechanism for the global “contraction and convergence” of income between North and South that Herman Daly espouses.

Third, there is no evidence that nations with more people or more immigrants damage their environments more. Population, affluence, and technologies affect one another in complex ways. Labor and resources are partly substitutes; a slowdown of population growth in rural India may lead to intensifying use of pesticides and gasoline-fueled tractors. What is worse for the environment is anyone's guess. Infinite population growth is impossible within a limited planet or nation, but feedbacks ensure that population will not grow indefinitely. In Europe, and increasingly Asia, fertility declines and population is bound to peak.



Fourth, immigration to advanced economies is capitalism's response to the shortage of cheap labor for menial jobs due to declining population growth and the rising education standards of natives. Undocumented, unsecured immigrants maintain labor costs low. I am concerned, like Herman Daly, with the prospects of a "post-national corporate feudalism." The response however is not to protect the immigrants from exploitation by blocking them out. Immigration is the result, not the cause, of the problem, namely globalization and the relentless need of capital to grow. It is the cause that has to be fixed, not the effect.

Finally, people do not leave their birthplaces and risk their lives in the Mediterranean Sea for fun or out of greed. They do it because conditions home are insupportable. The colonial wars waged by the North to secure its resource supplies, and the ecosystem degradation wrought by its overconsumption, have something to do with it. There is a humanitarian case to be made that the North should host the socio-environmental refugees that it has helped produce in the South.

In conclusion

Anders Wijkman invoked Tim Jackson's dictum that "growth is environmentally unsustainable, but degrowth is socially unstable." Curiously, it was invoked against degrowth, insisting on a one-way future where we *will* make growth sustainable, by a technological, or social miracle. One commentator (Al Hammond) was thrilled by a near future of hydroponics, synthetic biology, fusion, and supercomputer power. Count me out. The point of my original piece was that such a future is unsustainable, unnecessary, and undesirable (at least by those of us who consider ourselves environmentalists). Technological fixes shift costs to others, to the environment, and to future generations, at an ever-grander scale. Climate change is the legacy of our past technological achievements. I read Tim Jackson differently. Given that further growth is unsustainable, we have to bring forward the systemic and institutional changes that will make degrowth stable.